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REMARKS

Claims 3-6 and 8-26 are pending in this application.

Claims 3-6 and 8-26 are rejected.

The office action dated April 6, 2004 indicates that independent claims 8-9, 5-6 and 12-26 are rejected under 35 U.S.C. §102(b) as being anticipated by Wober U.S. Patent No. 5,475,769; claims 3-4 are rejected under 35 U.S.C. §103(a) as being unpatentable over Wober in view of Bell U.S. Patent No. 5,170,202; and claims 10-11 are rejected under 35 U.S.C. §103(a) as being unpatentable over Wober in view of Acharya U.S. Patent No. 6,348,929. All rejections are respectfully traversed.

Claim 18 recites a method of generating a linear operator for demosaicing of a digital image by a digital camera. The method comprises using a camera model, an image model, or both to design coefficients for the linear operator. The camera model is based on measured parameters of the camera

Wober et al. compute optimal coefficients using a known test pattern (e.g., random noise). The test pattern is captured by a digital camera, which provides a mosaic output. This output depends on the optics, electronics, etc., of the camera. Then an optimum set of coefficients is calculated, such that the squared difference between the known input and a third image is minimized (the third image is obtained by linearly demosaicing the mosaic output with that set of coefficients). Thus Wober et al. treat the digital camera as a black box. They do not design the coefficients from a model of the digital camera.

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Nor do Wober et al. design the coefficients from an image model. An image model is a statistical inference (e.g., a probability distribution) that addresses different possible images in a device-independent way.

None of the other documents made of record teach or suggest designing linear operator coefficients based on an image model or a camera model. Therefore, claim 18 and its dependent claims should be allowed over the documents made of record.

Claims 19 and 26 have been amended to depend properly from claim 18. Claims 27-29, which have been added to the application, also depend from claim 18.

Claim 8 recites a method of processing an input digital image produced by an optical system, the input image having less than full color information at each of a plurality of pixels. The method comprises accessing an operator including an array of demosaicing weights, values of the weights determined from at least one of an image model and an optical system model; and applying the operator to the input image to produce an output image having full color information at each of a plurality of pixels. Amended claim 8 and its dependent claims 3-6, 9-17 and 21-25 should be allowed over the documents made of record for the reasons above.

The examiner is respectfully requested to withdraw the rejections of the claims and issue a notice of allowability. The examiner is invited to contact the undersigned to discuss any remaining issues.